CLAIMS

1. A method of preparing chemical pulp and a xylose solution by the use of alkaline or neutral cooking and a post hydrolysis of the pulp, wherein the post hydrolysis is performed directly on the pulp by the use of an acid.

2. The method as claimed in claim 1, wherein the pulp is post-hydrolyzed with an acid until a xylose yield of no less than 5% is obtained, while the viscosity of the pulp remains at a value of no less than 300 ml/g.

3. The method as claimed in claims 1, wherein the pulp is post-hydrolyzed with an acid until a xylose yield of no less than 10% is obtained, while the viscosity of the pulp remains at a value of no less than 450 ml/g.

4. The method as claimed in claim 1, wherein the acid treatment is carried out with formic acid.

5. The method as claimed in claim 4, wherein the content of the acid solution is within the range 50 to 100%.

6. The method as claimed in claim 4, wherein the content of the acid solution is within the range 75 to 90%.

7. The method as claimed in claim 4, wherein the acid treatment temperature is between 90 and 130°C.

8. The method as claimed in claim 4, wherein the acid treatment temperature is between 100 and 120°C.

9. The method as claimed in claim 4, wherein the duration of the acid treatment is between 15 min and 4 h.

10. The method as claimed in claim 4, wherein the duration of the acid treatment is between 20 min and 1.5h.

11. The method as claimed in claim 1, wherein the acid treatment is performed with a bisulphite solution.

12. The method as claimed in claim 11, wherein the SO_2 content of the bisulphite solution is within the range from about 1 to about 5%.

13. The method as claimed in claim 11, wherein the SO_2 content of the bilsulphite solution is about 3%.

14. The method as claimed in claim 12, wherein the amount of bound SO_2 is about 10%.

15. The method as claimed in claim 11, wherein the acid treatment temperature is about 110 to 150°C.

16. The method as claimed in claim 11, wherein the acid treatment temperature is about 125 to 145°C.

17. The method as claimed in claim 11, wherein the duration of the acid treatment is 1 to 3 h.

18. A method as claimed in claim 1, wherein the acid treatment is performed after cooking.

19. The method as claimed in claim 1, wherein the acid treatment is performed after oxygen delignification.

20. The method as claimed in claim 1, wherein the acid treatment is performed after bleaching.

21. The method as claimed in claim 1, wherein the cooking is performed by the sulphate method, whereby the post hydrolysis is carried out directly on the pulp by the use of an acid.

22. The method as claimed in claim 1, wherein birch is used as the raw material in the cooking.

23. The method as claimed in claim 1, wherein after the acid treatment the obtained xylose solution and the chemical pulp are separated.

24. The method as claimed in claim 23, wherein the acid used in the acid treatment is separated from the obtained xylose solution.

25. The method as claimed in claim 24, wherein the separated acid is recycled and reused in the hydrolysis.

26. The method as claimed in claim 1, wherein the obtained chemical pulp is recovered.

27. The method as claimed in claim 26, wherein the obtained chemical pulp is mixed with non-acid-treated pulp.

28. A xylose solution obtained by the method of claim 24.

29. Xylose obtained from the xylose solution of claim 28.

30. A chemical pulp product obtained by the method of claim 26.